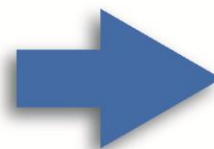




***DDM
King Kong***

User Manual

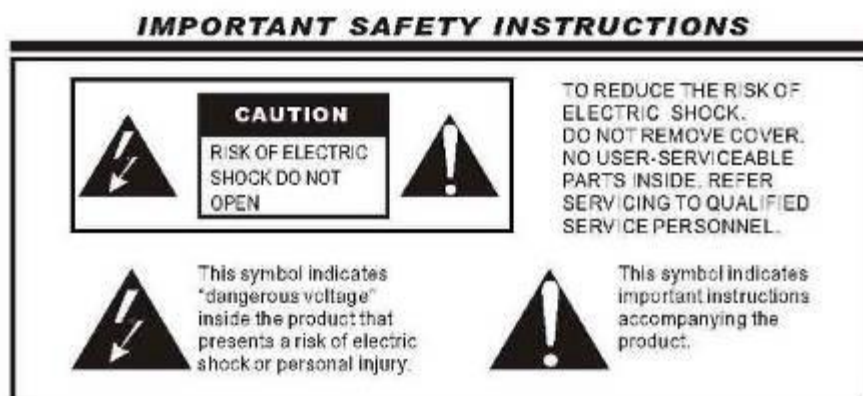


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Safety instructions for product with Lithium battery



WARNING: Do not use this product in place where is possible to touch or immerse in water. Do not put the product near flower vase, washbowls, kitchen sinks, laundry tubs, swimming pools, etc.

WARNING: Do not place it near the fire or heater. Please keep the working temperature within -20 to 60 degrees centigrade to prevent danger of fire.

WARNING: As unit is with rechargeable lithium battery built-in, for the first time use, please plug the power into the DC port until it is full charged and the unit can only be charged with the matched adaptor.

WARNING: In case of leakage, overheating, explosion or fire, don't dismantle or change the battery, or solder the battery. Consult your local dealer for technical service if it is required to open

WARNING: Don't charge the battery with charging source that exceeds the specified range

WARNING: Do not use the charger when there is short circuit or damage of the power source, or it may possibly lead to damage to the charger, fire or even electric shock.

WARNING: Don't charge in wet environment, for example bathroom. Keep it away from water containers.

WARNING: Don't pull the adaptor, touch the power or power socket with wet hand in case of electric shock, or other personal injury.

WARNING: Don't charge in the environment where there is direct sunlight, high temperature, wet air or high vibration. Please make sure charging temperature range from 0 to 45 degrees centigrade.

WARNING: Please charge every three mouths when stored for a long time without use, otherwise it may possibly damage the product. Please make sure

storing temperature range from -20 to 45 degrees.

Note: To ensure proper use of this product, please read this User manual carefully and retain for further reference.

Attachments: Never add any attachments or equipment without manufacturer consent, or it may result in the risk of fire, electric shock, or other injury.

Object and Liquid Entry: Never open to put any kind of objects into this METER, as they may touch dangerous voltage points or short-out parts that could result in fire or electric shock. Never spill any liquid on the METER.

Note: Moisture may be formed on the lens in the following conditions:

- when the unit is suddenly moved from a cold environment or an air-condition room to a warm place.
- after a heater has been turned on immediately.
- in a steamy or very humid room.

If the moisture forms inside the unit, it may not operate properly. To fix this problem, turn on the power and wait about two hours, until the moisture evaporates.

Parts Replacement: When the unit parts need to be replaced, user should make sure the service technician use the replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized replacement may put the unit in the risk of fire, electric shock or other hazards.

Safety Check: When all the maintenances and repairs are done, user is required to request the service technician to conduct an overall safety check to ensure the machine is in the proper condition.

2. Environment protection



Attention!

The symbol above indicates that the used products cannot be mixed with other waste, and it requires proper disposal..






Information on Disposal for Users (private households) in the European Union

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment. Following the implementation by

member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge. In some countries, your local retailer may also take back your old product without charge if you purchase a new similar one. Please contact your local authority for further details. If your electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements. By disposing of this product correctly, you will help ensure that the waste undergoes the necessary treatment, recovery and recycling, to prevent potential negative effects on the environment and human health, which could otherwise arise due to inappropriate waste handling.

3. Basic parameter

Rated Capacity	4100mAH
Storing temperature	-20℃～40℃
Charge temperature	0℃～45℃
Working temperature	-20℃～60℃

SYMBOL	CHARGE LEVEL
	75%~100%
	30%~75%
	10%~30%
	<10%
	Charge in progress

Battery Charging

To fully charge the battery, connect the instrument to the external DC charger without activating the power on process. The time it takes to recharge it depends on the condition of the battery, if they are very low, it will take about 4 hours and the charger indicator should remain lit.

When the battery charging process is completed with the instrument Off, the fan will stop.

Importance:

The instrument battery needs to be kept charging between 30% and 50% of its capacity when it is not in work. The battery needs to be fully charged for best result.

Features

Full Measurement for DVB-S2 & DVB-T2 & DVB-C
Asynchronous Serial Interface Supported
Annex A/C Supported by DVB-C tuner
Real-time and multi-Analyzing Spectrum
Constellation Chart
GPS /LCN
BER, S/N (MER), FEC Measurement
Auto Search, Blind Search, NIT Search, Manual Search
Satellite Name & Degree Auto Detective & Display
Auto DiSEqC1.0/DiSEqC1.1/DiSEqC1.2, USALS
MDU & Unicable
Local satellites list showing automatically
Transport Stream Recording Supported
H.264 HDTV 1080P
AV-OUT for External Display, TV
AV-IN Function for STB
Easy upgrading by Ethernet & USB & RS232 Port
Satellite List Editable by Editor via PC
FTP, Data Backup
Conax/CA Embedded
Common Interface Supported
13V/18V, 22K supported
Dish Antenna Angle Calculator
Multi-Language OSD: English, German, French, Spanish, Italian, etc.
Global/Local Satellite list
Build-in GPS receiver
7 Inch High Definition TFT LCD Screen
LED (Red/Green) & Audio Indication for Signal Lock

Glossary

Selecting the measurements

The type of measurements available depends on the operating band (cable/terrestrial or satellite).

1. DVB-S/S2 System

Level: Level measurement of the currently tuned carrier

C/N: Ratio between the modulated signal power and the equivalent noise power for a same bandwidth

MER: Modulation error ratio

CBER: BER measurement (Bit error rate) for the digital signal before error correction (BER before FEC)

VBER: BER measurement (Bit error rate) for the digital signal after error

correction (BER before Viterbi)

2. DVB-C and DVB-T system

Chanel power: Channel power is measured assuming that power spectral density is uniform throughout channel bandwidth.

To measure it correctly, it is indispensable to define the CHANNEL BW.

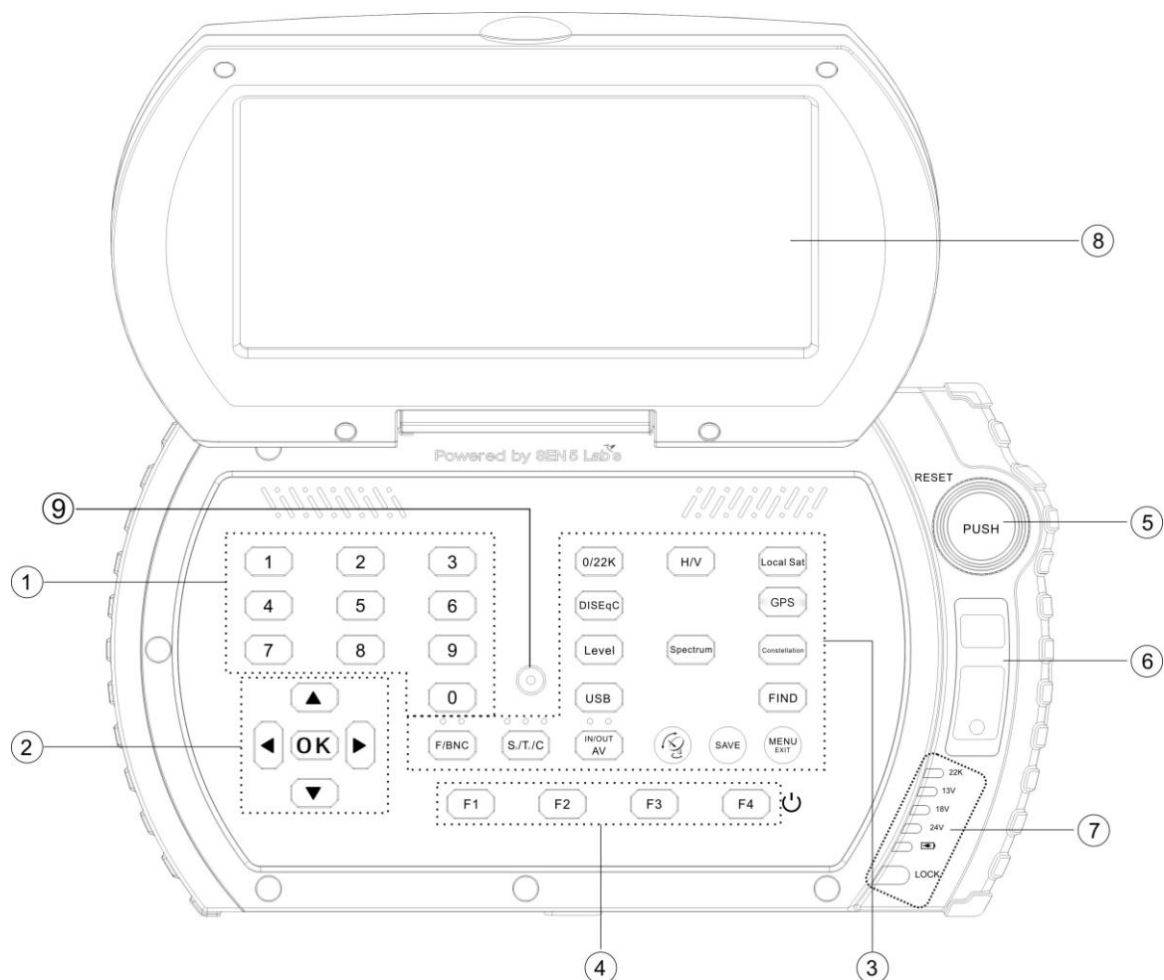
C/N: out-channel measurement, Noise level is measured at $f_{\text{noise}} = f_{\text{tuning}} \pm 1/2^*$ Channel BW, to measure it correctly digital channel must be tuned at its central frequency

MER: Modulation error ratio

CBER: BER measurement (Bit error rate) for the digital signal before error correction (BER before FEC)

VBER: BER measurement (Bit error rate) for the digital signal before error correction (BER after FEC)

Front panel



(1) number keyboard: press number key to select channel

(2) cursors: through the different menus and submenus that appear in the monitor

- (3) main key board: 16 keys to select functions and entering alphanumeric data
- 0/22K: switch 22k ON or OFF during watching TV programs
 - H/V: switch polarity to Horizontal or Vertical during watching TV programs
 - Local sat: display the local sat menu during watching TV programs
 - DiSEqC: press this key move to DiSEqC kits menu
 - GPS: press this key move to GPS menu
 - Level: display the Level menu during watching TV programs
 - Spectrum: display the spectrum menu during watching TV programs
 - Constellation: display the constellation menu during watching TV programs
 - USB: display the USB menu during watching TV programs
 - Find: display the SAT find menu during watching TV programs



: To switch BNC or F-type connect

The LED remains lighted when the equipment works with the connected type



: To switch DVB-Satellite, Cable or Terrestrial TV system

The led remains lighted when the equipment works with the TV system



: To switch AV signal input or output

The led remains lighted when the equipment works with the AV signal status



: Display the emulation menu during watching TV programs



: Press save key to save setting parameters



: Press this key can exit the current menu to last menu or close the current menu, and display the main menu during watching TV programs

- (4) Function key: different function on the submenus

F4: one of its functions is to power on/off the equipment: press F4 key for more than three seconds until the presentation screen appears;

- (5) Rotary selector-button: this has many different functions

Press one time to enter to the menu; turning, moving between the various on screen menus and submenus, and valid of the different options;

It's also as a reset button: enable the user to restart the instrument if any irregularity when operating (hold the rotary selector pressed for six seconds)

- (6) LED display: display signal strength

When the equipment is connected to the POWER, the charger LED remains lighted

- (7) Indicator light: display LNB status
- (8) Monitor: 7 Inch High Definition TFT LCD Screen
- (9) Gradienter: measure if the device has been placed horizontal

Interface

HDMI: Audio and Video output socket for TV set with HDMI Input Jack only.

Ethernet: Network port, you can get a new software update from this port.

RS232: To transfer the data to PC by RS-232 cable

CA: supported Conax condition access

USB: 1 USB2.0 Port, USB media player to play back the media in USB flash disk or USB HDD or USB card reader with memory card.

CI: support common interface

AV IN/OUT: to switch AV signal input for equipment or output for external equipment

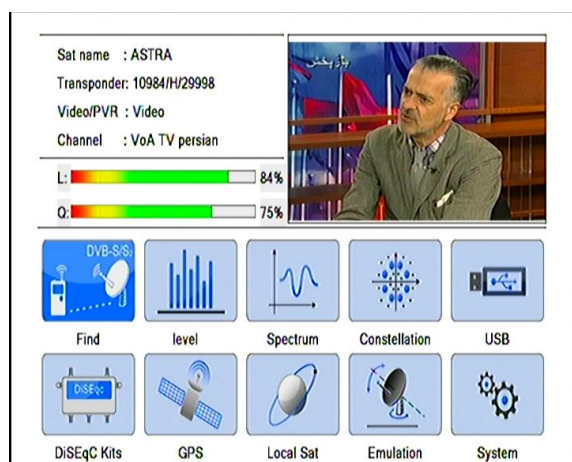
DVB-S/S2 F-Female connector: Connect the coaxial cable from LNB of your Dish by F-female connector

DVB-S/S2 BNC: Connect the coaxial cable from LNB of your Dish by BNC connector

T2/T/C connector: Connect the coaxial cable

Introduction of Main Menu

1. DVB-S/S2 System



There are ten menu items in the Main menu, as following:

1. Sat Find:

Used for program searching.

2. Level:

Used for connecting the antenna and set DiSEqC

3. Spectrum:

Used to display and save the spectrum within a frequency range

4. Constellation:

Used to display the signal phase and quality of current frequency

5. USB:

Used to display and save the spectrum within a frequency range

6. DiSEqC Kits:

Used to display the signal phase and quality of current frequency

7. GPS:

Used to show local geography information and the number of GPS Sat in use

8. Local Sat:

Used to view and search the local satellite

9. Emulation:

Used for calculating the required azimuth, elevation angle and polarization angle

10. System

Including property settings for the system, USB upgrade or backup, Internet setup and upgrade, and restore to factory defaults.

2. DVB-T System and DVB-C System

1. Find:

Used for program searching.

2. Level:

Used for connecting the antenna and set DiSEqC

3. Spectrum:

Used to display and save the spectrum within a frequency range

4. Constellation:

Used to display the signal phase and quality of current frequency

5. USB:

Used to display and save the spectrum within a frequency range

6. System

Including property settings for the system, USB upgrade or backup, Internet setup and upgrade, and restore to factory defaults.

Operating Description

a) SAT FIND

1. DVB-S/S2 System

On the DVB-S/S2 system, press S2/T2/C key to switch other system when the focus on the main menu

1.1 Description of Menu Item



1) Satellite:

Options of the satellite name and satellite longitude. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired satellite.

2) LNB Freq:

LNB Frequency option. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired LNB frequency.

3) Transponder:

Transponder option which include three parameters: frequency, polarization and symbol rate. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired transponder.

4) 22K:

22K switch which include On and Off options. There is no need to make choice as it becomes Auto when the LNB Freq is selected Universal.

5) Scan type:

Search Type options. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired search type.

6) Start scan:

Press the button, it will start program searching by the scan type you choose.

1.2 Description of Menu Information

1) Level:

Show the strength of signal.

2) Quality:

Show the quality of signal.

3) BER:

Short of Bit Error Rate, show the error rate of signal.

4) Sat Name Identify:

Show satellite name or satellite longitude detected from the network automatically.

1.3 Description of Menu Help

1) F1:

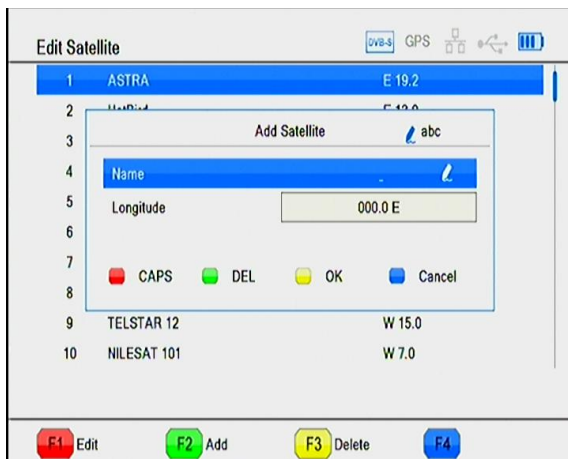
Press to enter the Satellite edit menu.



On the satellite edit menu, press [RED] button to Edit satellite when the cursor on the satellite list, you can edit the satellite name and longitude



Press [Green] button to add the satellite

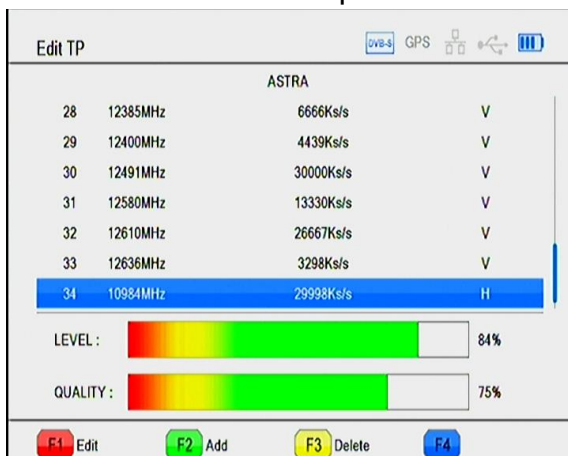


[Blue] button to delete the satellite



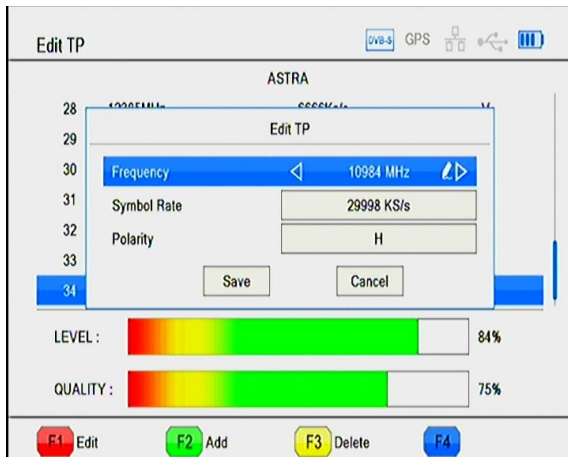
2) F2:

Press to enter the transponder edit menu.

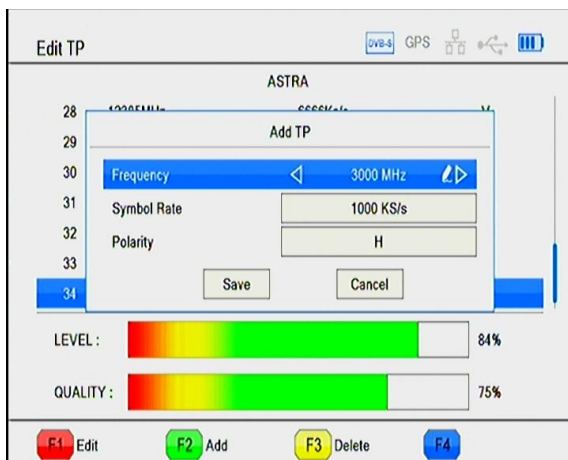


On the transponder edit menu,

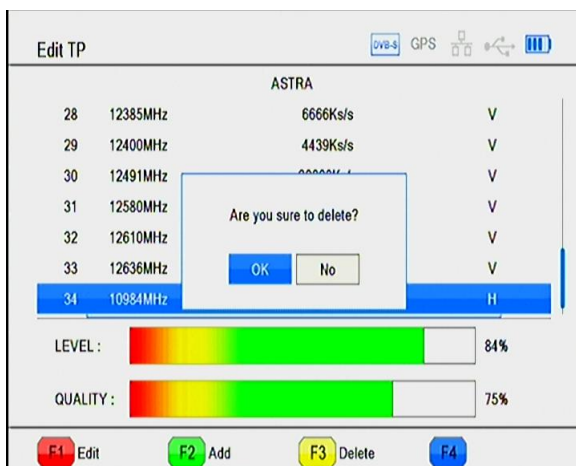
- [Red] key: To edit TP Frequency / Symbol Rate / Polarity



- [Green] key: To add a new TP



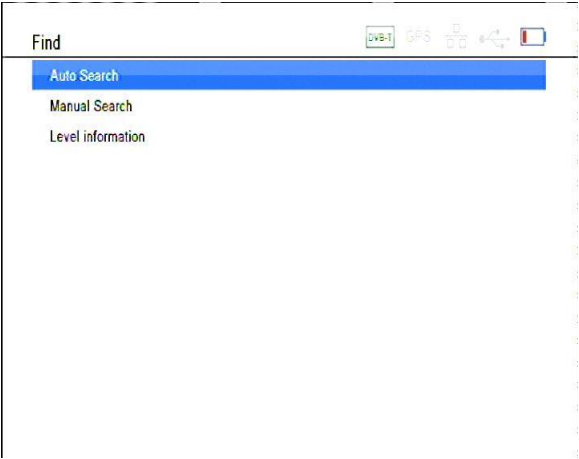
-[Yellow] key: To delete the certain TP which you don't want.



- [Blue] key: It is used to begin to search a selected TP in the TP list which is highlighted.

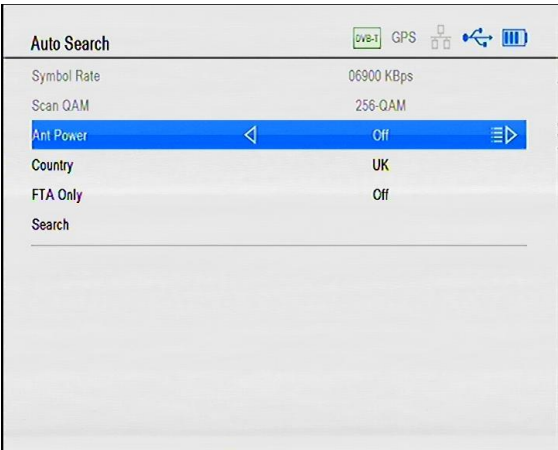
2. DVB-T/T2 System

On the DVB-T/T2 system, press S2/T2/C key to switch other system when the focus on the main menu



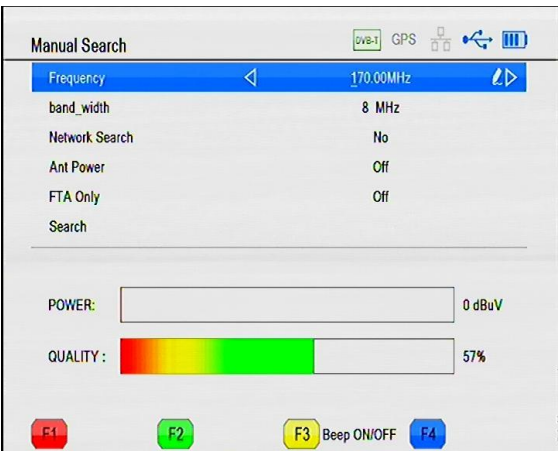
2.1 Description of Menu Item

1) Auto search



On the Auto search mode, the equipment will scan channel by default transponder list

2) Manual search

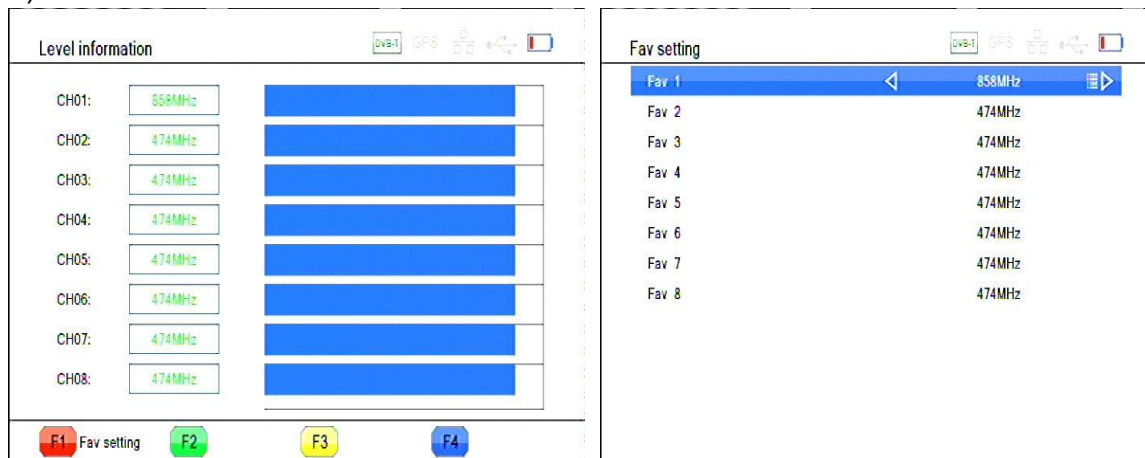


When the cursor on the Search, press OK key to start channel search by current transponder

The manual search support NIT search when your select Network search mode is ON

The Antenna power mode support "OFF/5V/12V/24V"

3) Level information

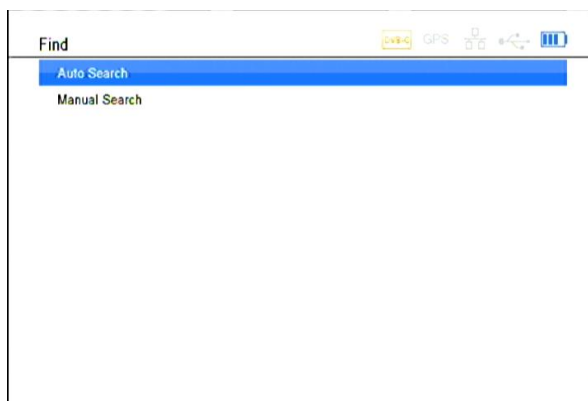


On the level information menu will display some transponder level information
You can press F1 button to setting transponder form CH01 to CH 08

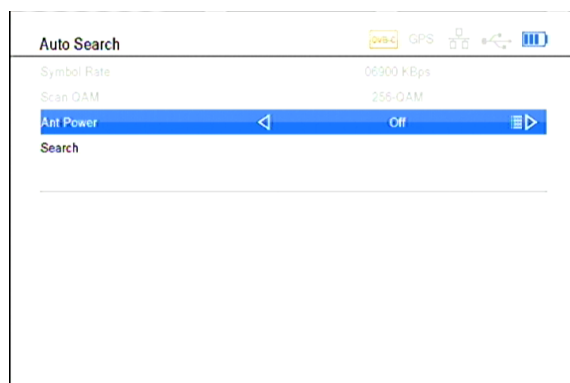
3. DVB-C System

On the DVB-C system, press S2/T2/C key to switch other system when the focus on the main menu

3.1 Description of Menu Item

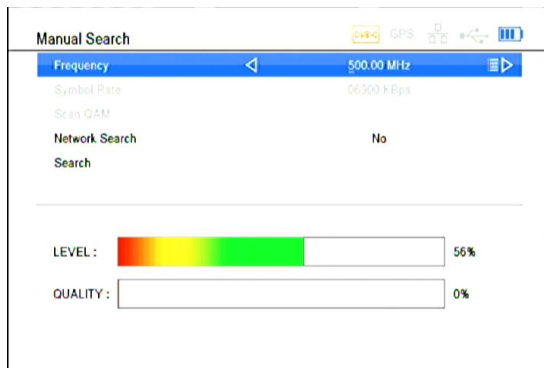


1) Auto search



On the auto search mode, the equipment will scan channel by default transponder

2) Manual search



On the manual search mode, the equipment will scan channel by current parameter

The equipment will detector the symbol rate with network

b) Level

1. DVB-S/S2 System

On the DVB-S/S2 system, press S2/T2/C key to switch other system when the focus on the main menu

1.1 Description of Menu Item

1) Satellite:

Options of the satellite name and satellite longitude. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired satellite.

2) LNB Freq:

LNB Frequency option. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired LNB frequency.

3) Transponder:

Transponder option which include three parameters: frequency, polarization and symbol rate. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired transponder.

4) 22K:

22K switch which include On and Off options. There is no need to make choice as it becomes Auto when the LNB Freq is selected Universal.

5) DiSEq1.0:

DiSEq1.0 port option. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the satellite connection port.

6) DiSEq1.1:

DiSEq1.1 cascading options, including first cascade port and second cascade port. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired Cascade type and port.

7) Motor Type:

Motor type options, including Fixed, Diseqc1.2 and USALS. Press the ◀ key or ▶ key to select the motor type used.

8) Limit setup:

This menu item exists only when the Motor Type is chose Diseqc1.2 or USALS. Press the button to enter the Motor limit position setup menu.

1.2 Description of Menu Information

1) Level:

Show the strength of signal.

2) Quality:

Show the quality of signal.

2. DVB-T/T2 System

On the DVB-S/S2 system, press S2/T2/C key to switch other system when the focus on the main menu



2.1 Description of Menu Item

1) Frequency

When focusing on the Frequency option, press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired frequency.

2) Bandwidth

When focusing on the bandwidth option, press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired bandwidth

3) Network search

2.2 Description of Menu Information

Display the parameter information of the current signal (like C/N、Power、MER、CBER、VBER)

3. DVB-C System

On the DVB-S/S2 system, press S2/T2/C key to switch other system



3.1 Description of Menu Item

1) Frequency

When focusing on the Frequency option, press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired frequency.

3.2 Description of Menu information

Display the parameter information of the currently signal (like C/N、Power、MER、CBER、VBER)

c) Spectrum

1. DVB-S/S2 System

1.1 Description of Menu Information



1) Start:

Start frequency of spectrum.

2) End:

End frequency of spectrum.

3) Cur:

Current frequency of spectrum, marked with a green vertical line.

4) Span:

Frequency coverage of spectrum

Move the Rotary selector-button to moving the focus

Press Spectrum key to switch FFT and AGC mode

Press Level key to switch different display scale

1.2 Description of Menu Help

1) FREQ:

Press F1 key to set Start and End frequency of spectrum.

2) Span:

Press F2 key to set Frequency coverage of spectrum.

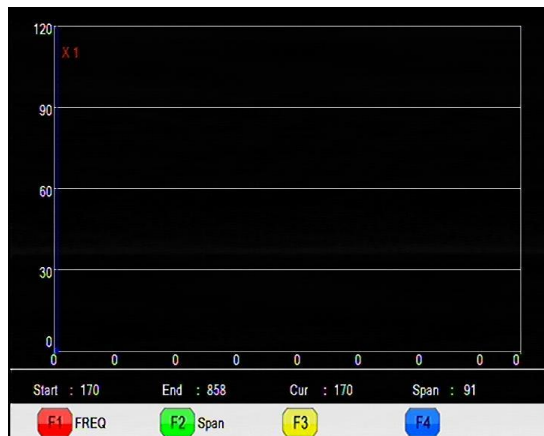
3) File:

Press F3 key to Capture the Current picture and save in the USB device

4) Locking:

Press F4 key to locking the current frequency

2. DVB-T/T2 system



1) Start:

Start frequency of spectrum.

2) End:

End frequency of spectrum.

3) Cur:

Current frequency of spectrum, marked with a green vertical line.

4) Span:

Frequency coverage of spectrum

Move the Rotary selector-button to moving the focus

1.3 Description of Menu Help

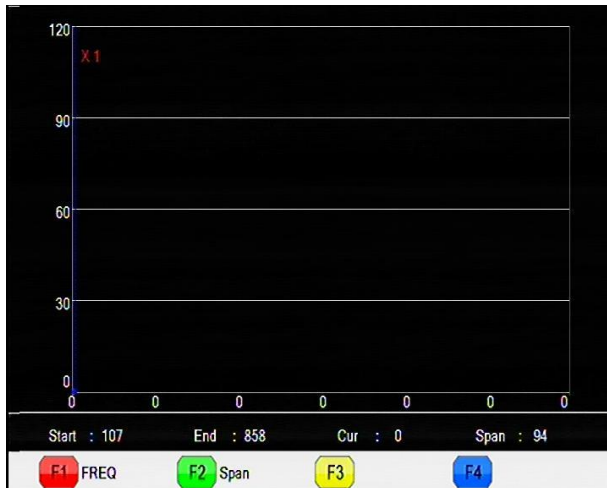
1) FREQ:

Press F1 key to set Start and End frequency of spectrum.

2) Span:

Press F2 key to set Frequency coverage of spectrum.

3. DVB-C System



- 1) Start:
Start frequency of spectrum.
- 2) End:
End frequency of spectrum.
- 3) Cur:
Current frequency of spectrum, marked with a green vertical line.
- 4) Span:
Frequency coverage of spectrum

Move the Rotary selector-button to moving the focus

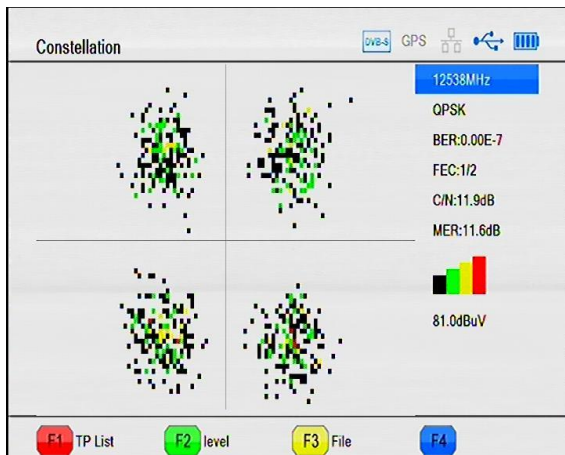
1.4 Description of Menu Help

- 1) FREQ:
Press F1 key to set Start and End frequency of spectrum.
- 2) Span:
Press F2 key to set Frequency coverage of spectrum.

IV. Constellation

1. DVB-S/S2 system

1.1 Description of Menu Information



1) xxxMHz:

Frequency of current TP

2) QPSK:

Displays the current phase, there may be QPSK, 8PSK, 16PSK or 32PSK.

3) BER:

Short of Bit Error Rate: show the error rate of signal.

4) FEC:

Short of Forward Error Correction, display FEC rate of the current frequency signal

5) C/N:

Displays signal carrier to noise ratio of the current frequency.

6) MER:

Display modulation error ratio of the current frequency

7) Power:

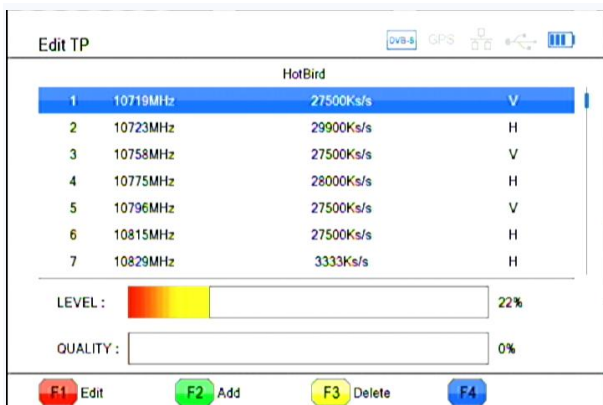
Display the signal quality of the current frequency

8) Sat Name Identify:

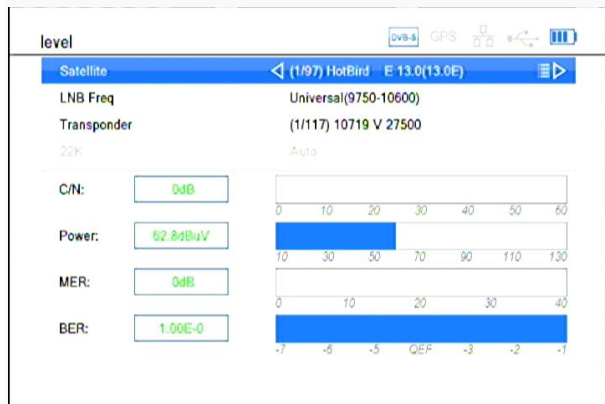
Display the actual satellite name and satellite longitude of current frequency when signal is locked.

1.2 Description of Menu Help

1) F1: Press to enter the TP LIST menu, choose a certain TP to display its constellation.

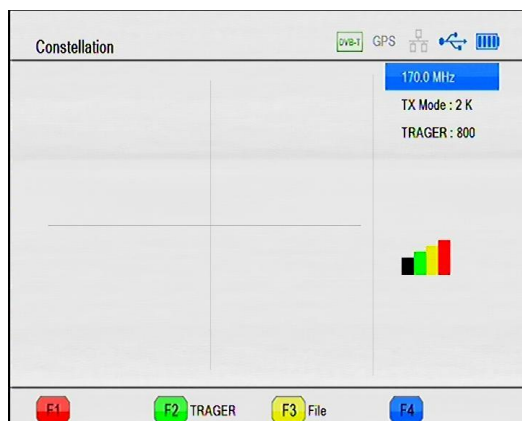


2) F2: Press to enter the level menu, which displays information of current satellite constellation, including satellite name, satellite longitude, current TP parameters, C/N, power, MER, BER



3) F3: Press to caption the current screen

2. DVB-T/T2 system



1.1 Description of Menu Information

1) xxxMHz:

Frequency of current TP

2) TX Mode:

Modulation mode

3) RAGER:

The number of current carriers received

1.2 Description of Menu Help

1) F2:

Press F2 to edit modulation mode



2) F3:

Press F3 key to Capture the Current picture and save in the USB device

3. DVB-C system



1.1 Description of Menu Information

1) xxxMHZ:

Frequency of current TP

2) BER:

Short of Bit Error Rate: show the error rate of signal

3) C/N:

Displays signal carrier to noise ratio of current frequency.

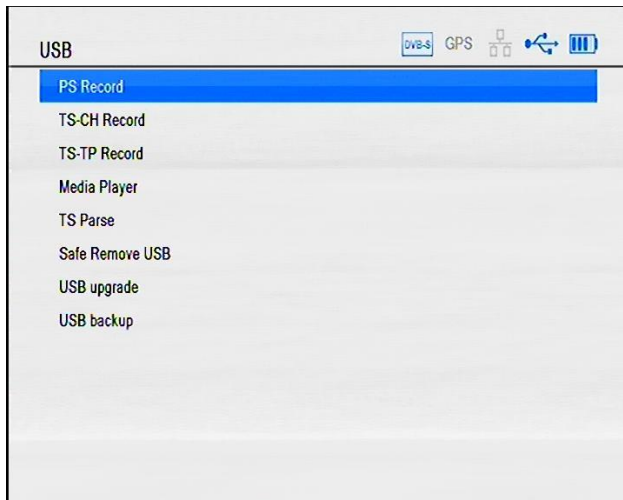
4) Power:

1.2 Description of Menu Help

1) F3:

Press F3 key to Capture the Current picture and save in the USB device

V. USB



1. PS Record

Press this key, the recording program is PS stream.

When highlight on the PS Record item, press ok key to start recording of current program with PS stream format.

You can press STOP key to stop the current recording.

2. TS-CH Record

When highlight on the TS-CH record item, press ok key to start recording of current program with TS stream format.

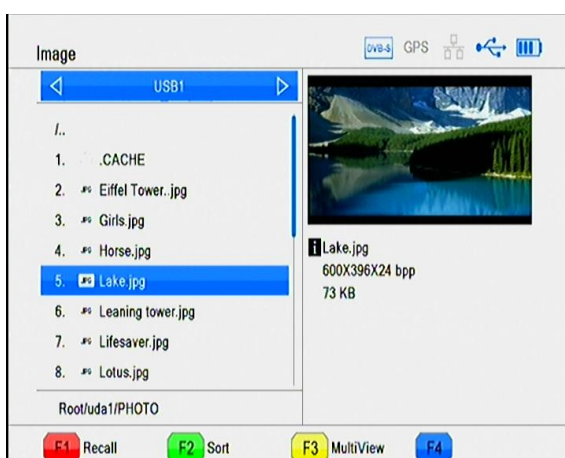
3. TS-TP Record

When highlight on the TS-TP record item, press ok key to start recording of current transponder with TS stream format.

4. Media Player

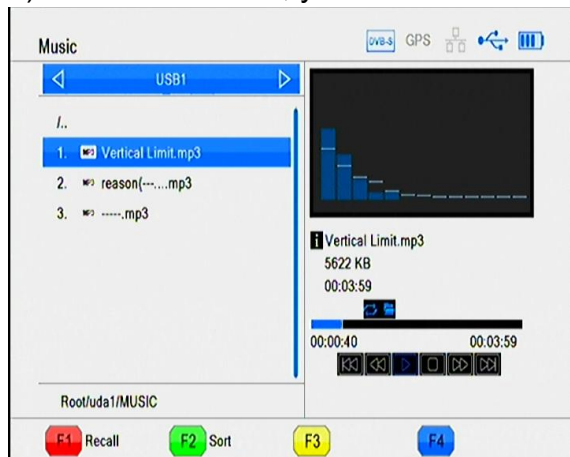
If you want to view media files which are stored in your USB device, select Music, Photo or Movie in the main menu. The screen shows up the supported MP3 files stored in your USB device.

Note: If no USB Memory Device (like HDD or USB Memory Stick) inserted to the equipment, this menu will be not available.



This menu provides the media playback functions, including 4 kinds of Media type, Record, Music, Image, Video; users can switch the present playing type by pressing F1 button, in the top of the menu, the highlight icon shows the media type.

1). In “Music” menu, you can choose the Music file (MP3 file) and enjoy the music.



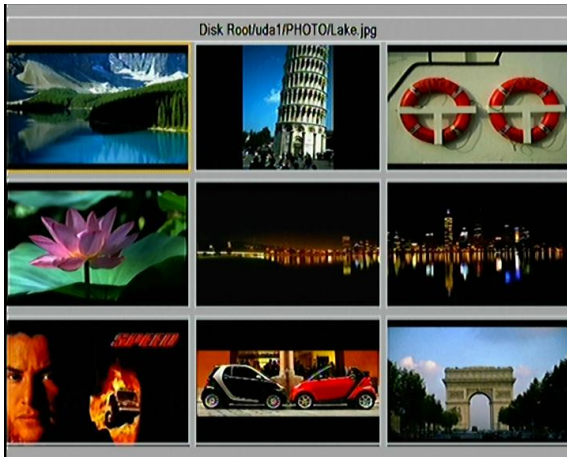
Green key: To sort by some mode



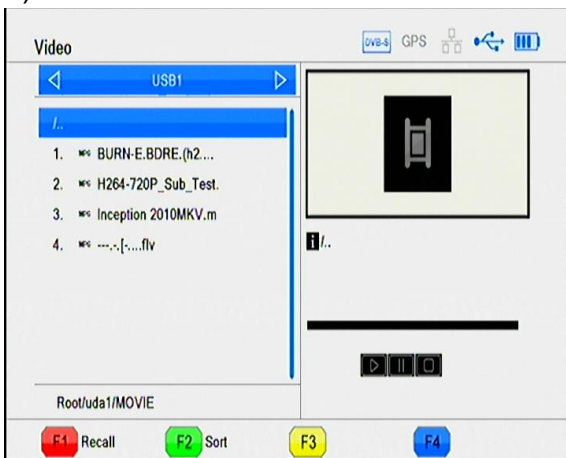
2) The menu for Photo offers the similar functions with the music menu. See Music Menu for the detailed Photo operation.

Green key: To sort by some mode with photo file.

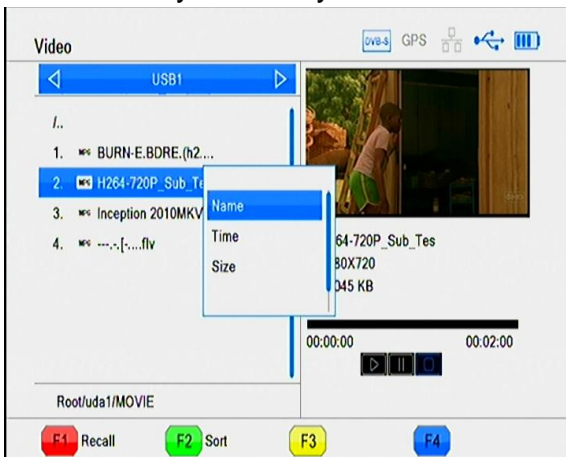
Yellow key: To display all of picture with multi-view mode




3) The menu for video offers the similar functions with the music menu



Press F2 key to sort by some mode



You can do fast forward, fast backward and seek with  trick keys on remote controller.


- FB (fast backward) and FF (fast forward) keys support x2, x4, x8, x16, x24.
- PLAY / PAUSE keys: to pause and play the file when you press play / pause key.
- STOP key: To stop the playing file.
- PREV key: To move to the previous file.

- NEXT key: To move to the next file.
- STEP key: To Jump forward by chapter.

The menu of record



Press F2 key to rename the recording file

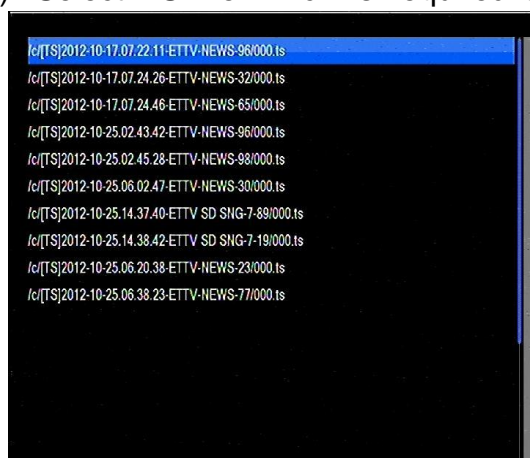
You can do fast forward, fast backward and seek with  trick keys on remote controller.

- FB (fast backward) and FF (fast forward) keys support x2, x4, x8, x16, x24.
- PLAY / PAUSE keys: to pause and play the file when you press play / pause key.
- STOP key: To stop the playing file.
- PREV key: To move to the previous file.
- NEXT key: To move to the next file.
- STEP key: To Jump forward by chapter.

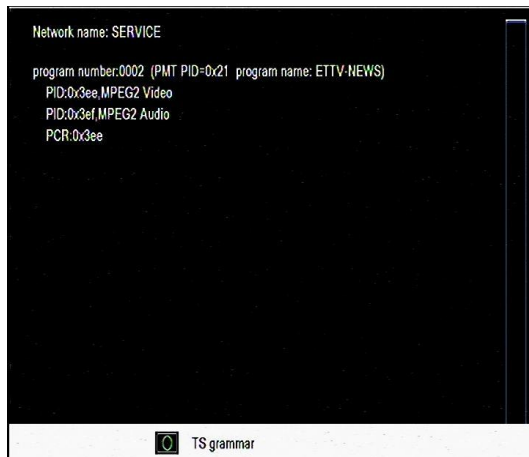
5. TS- Parses

1). Connect USB storage device, enter TS Parse menu:

2). Select TS file which is required to analyze:



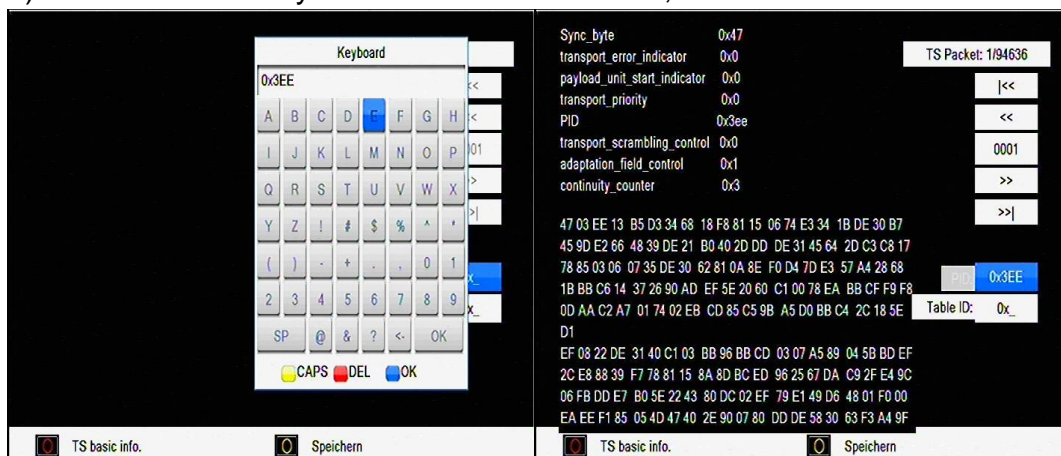
3). Press OK button:



4). Press green button to enter TS grammar:



5). Press number keyboard to insert PCR data, then it will show detail analysis:



6. Safe remove usb

Choose safe remove usb option, press OK button to unmount file system, and take out usb equipment safely

7. USB upgrade

Press to enter USB upgrading menu when the USB is connected.

When you enter “**Upgrade by USB**” menu, you can download new software to this receiver by external USB memory device. (Upgrade Mode has options: total flash, firmware, user date).

- 1) “**total flash**” : You can upgrade whole file to you equipment flash. Please rename your new file name to be the format “**.abs**”, which means any other string is acceptable, but the extension name must be “**.abs**”. Then Press **OK** key to start upgrade by USB.

When you use the “total flash” mode, please makesure the Battery is fully charged

- 2) “**firmware**” : the upgrade without “bootloader”

8. USB backup

Press to enter USB backup menu when USB is connected.

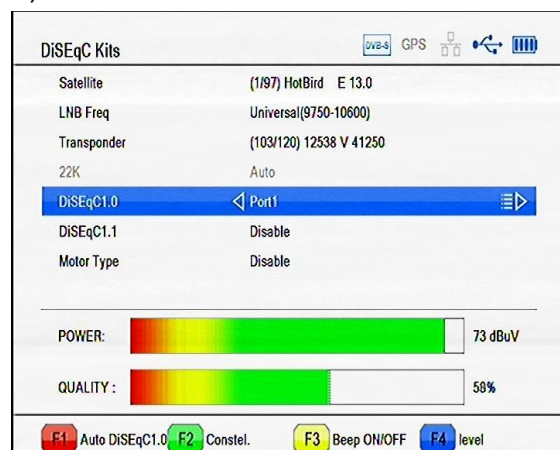
When you enter “Backup by USB” menu, you can store the changed parameters and searched channels, etc.

- 1) Insert the external USB memory device to USB slot of this receiver.
- 2) Select the mode you want to backup among “user data”, “total flash”, etc.
- 3) Press “start” to start backup for USB memory device.

VI. DiSEqC Kits

1. Description of Menu Item

- 1) Satellite:



Options of the satellite name and satellite longitude. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired satellite.

- 2) LNB Freq:

LNB Frequency option. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired LNB frequency.

3) Transponder:

Transponder option which includes three parameters: frequency, polarization and symbol rate. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired transponder.

4) 22K:

22K switch which include On and Off options. There is no need to make choice as it becomes Auto when the LNB Freq is selected Universal.

5) Diseqc1.0:

Diseqc1.0 port option. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the satellite connection port.

6) Diseqc1.1:

Diseqc1. 1 cascading options, including first cascade port and second cascade port. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired Cascade type and port.

7) Motor Type:

Motor type options, including Fixed, Diseqc1.2 and USALS. Press the ◀ key or ▶ key to select the motor type used.

NOTE: How to set-up DiSEqC 1.2 Motor or USALS Positioner

DiSEqC 1.2 Set-up

- ✧ Go to Motor Setting to setup the followings..
- ✧ Position No. & Save: You can press [Vol +/-] key or number key to input Position No.
- ✧ Go to X: You can go to X-position or go to reference.
- ✧ West / East : To adjust antenna position to EAST or WEST by pressing <VOL> button
- ✧ Save: After select “Satellite” and “Position No & Save”, press [OK] to save the position.
- ✧ Recalculation: Press [OK] key to recalculate the position of satellite antenna motor.
- ✧ Delete All: To delete all satellite positions. This item is only valid in “DiSEqC1.2” Mode.
- ✧ Limit Setup :
 - To setup the East limit and West limit of antenna position by pressing [VOL +/-] keys. Press OK button to save the each limits.
 - Go to Reference: If you press [OK] key, it will go to the center position of the positioner.

USALS Set-up

- ✧ Input the Local Longitude and Local Latitude of your present location. And, USALS can move dish automatically.
- ✧ Go to Motor Setting to setup the followings
- ✧ Select satellite and transponder to move the dish to the right place.

✧ Limit Setup :

- To setup the East limit and West limit of antenna position by pressing [VOL +/-] keys. Press OK button to save the each limits.
- Go to Reference: If you press [OK] key, it will go to the center position of the positioner.

8) Limit setup:

This menu item exists only when the Motor Type is chose Diseqc1.2 or USALS. Press the button to enter the Motor limit position setup menu.

2. Description of Menu Information

1) Level:

Show the strength of signal.

2) Quality:

Show the quality of signal.

3. Description of Menu Help

1) F1:

Press to enter Auto Diseqc1.0 menu, which can detect the satellites connected to Diseqc1.0 port automatically.

2) F2:

Press to show the constellation corresponding to current satellite and transponder.

3) F3:

Press to set the Beep ON/OFF

4) F4

Press to show the LEVEL menu

VII. GPS

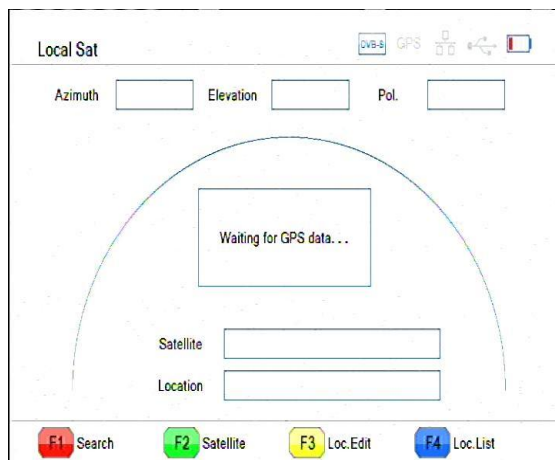
1. Description of Menu Information

Enter GPS, it will show local geography information, including heading, longitude, latitude, altitude, and UTC time, and it will also the number of GPS Sat in use.

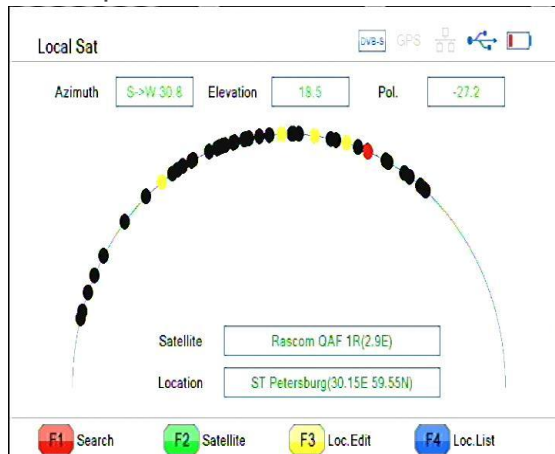
GPS	
Heading(degree):	N 58
Longitude:	113.76E
Latitude:	22.33N
Altitude(M):	56
UTC time:	02:28:56
In use(GPS sat):	6

VIII. Local Sat

When you first entry to the local sat menu, need to wait for GPS data



If accept the GPS data, the Location will display location longitude and latitude

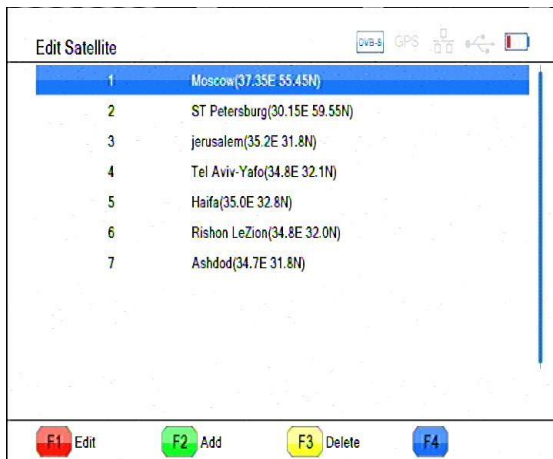


1. Description of Menu Item

1) Location:

Press the F4 key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select a certain location. At this point, the screen will show all satellites within 40 degrees of longitude around the region, including the green marked indicating the current satellite.

Press the F3 key to display local city list



F1: to edit the location longitude and latitude

F2: to add the local city

2) The name and longitude of satellite showing in the upper part of the screen:

The name and longitude of current satellite marked in green. By press ◀ / ▶ you can switch to other satellite.

2. Description of Menu Information

1) Level:

Show the strength of signal.

2) Quality:

Show the quality of signal.

3) Azimuth:

Show the required antenna azimuth to align current satellite in the current region.

4) Pol:

Show the required antenna polarization angle to align current satellite in the current region.

5) Elevation:

Show the required antenna elevation angle to align current satellite in the current region.

3. Description of Menu Help

1) ◀ / ▶: Press the ◀ / ▶ to switch the current satellite.

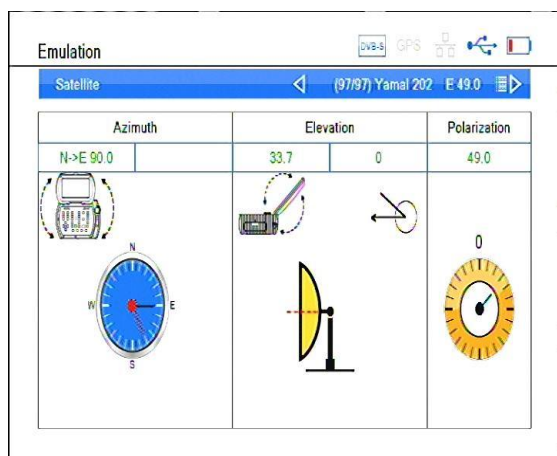
2) F1: Press to enter the Search menu, searching for current satellite programs.

3) F2: Press to enter the Satellite Edit menu

4) F4: Press to display local list

Press up/down key to move the highlight to choose the current location

IX. Emulation

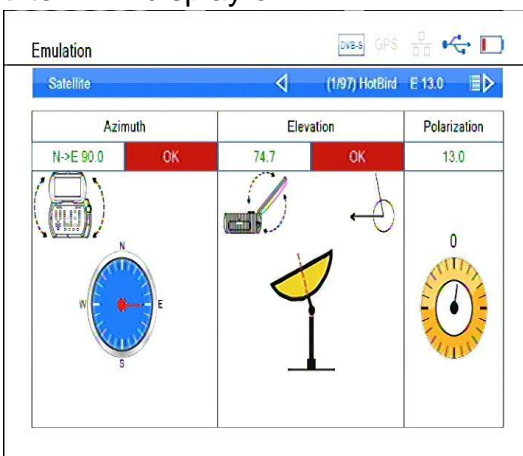
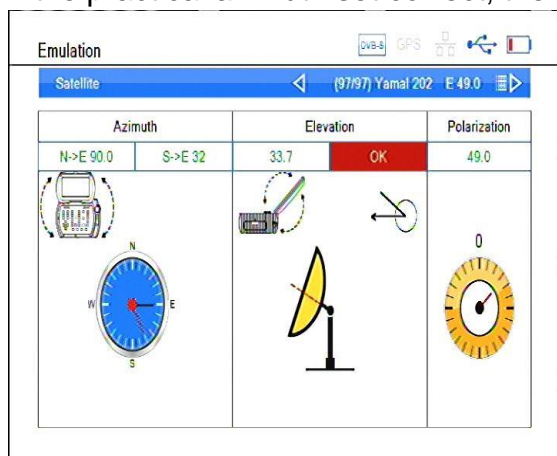


Press right/left key to select the satellite and which one want to set

First, you can Move the screen up or down to set elevation, it like the LNB face to the satellite

On the elevation menu, the left item display the emulation elevation parameter, if the practical elevation set correct, the right item will display ok

The second, move the equipment left or right to set emulation azimuth parameter, if the practical azimuth set correct, the right item will display ok



1. Description of Menu Item

1) Satellite:

Options of the satellite name and satellite longitude. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired satellite.

2) Sat Degree:

Display longitude of selected satellite, which can be edited.

3) Local Longitude:

Local longitude, which can be edited

4) Local Latitude:

Local latitude, which can be edited

5) Calculate:

Press to calculate the required antenna Azimuth, elevation and polarization, to align current satellite and show the result at the bottom of the screen.

Move the equipment left or right to set azimuth

Move the screen up or down to set elevation

2. Description of Menu Information

1) Azimuth:

Show the required antenna azimuth to align current satellite in the current region.

2) Elevation:

Show the required antenna elevation angle to align current satellite in the current region.

3) Polarization:

Show the required antenna polarization angle to align current satellite in the current region.

If the compass no working, please make the equipment move to like “8” pattern



X. System

1. System settings

When with highlight on the system setting item, press OK key and entry system setting menu will display like:

1) City:

Options of city or area. Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired city.

2) OSD Language:

Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired language.

3) OSD Transparency:

Press the OK key to get a drop-down list, move the cursor with the arrow keys and press the OK button to select the desired transparency.

There are 5 levels of transparency, 10%, 20%, 30%, and 40% and “OFF” (means no transparency function).

4) OSD style

Press the ok key to get an OSD style list, move the cursor with the arrow key to switch the OSD style

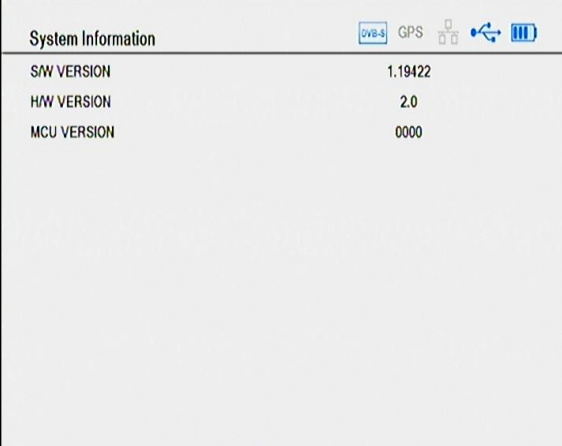
5) LNB Power:

LNB power supply options.

LNB Power: The receiver will supply power to satellite antenna in “On” mode.

2. System information

Enter Information menu, it will show information about this equipment



System Information	
S/W VERSION	1.19422
H/W VERSION	2.0
MCU VERSION	0000

3. System password

Select “system password” menu and there will be pop-up message to input the password. Default password is “0000”

4. CA

We provide CA slots for user. Receiver has been built in smart card module with CONAX system. By using cards provided by operators in this system, it is possible to watch many scrambled channels coded in this system. This menu shows detailed information about card inserted into card reader module. It allows inserted in order to help messages visible on the bottom of the screen.

Note:

All information showed in this menu and submenu is coming from inserted card. If anything is wrong, it could be card problem. After inserting the card correctly at any time, a message-box will show on the screen with message about detecting the card, in "card info" menu all available information will be displayed

5. CI

We provide CI slot for user to use. Using different CAM & cards provided by different CAS operator, user can view many type or scrambled channels.

We provide this menu to display the detail information of the CAM & cards inserted in the slots. User can check all this information by the message at the bottom of each menu.

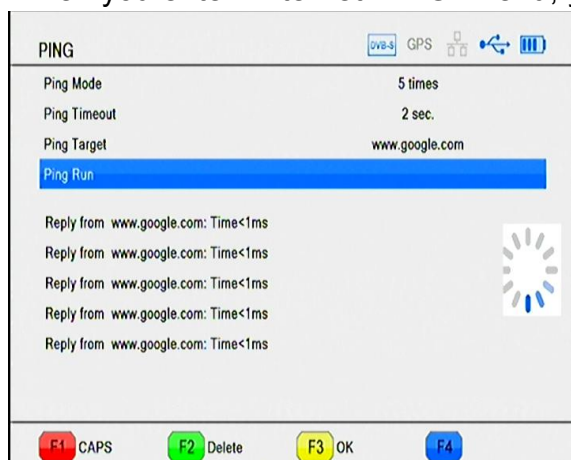
When you insert the CAM correctly at any time, a message will be showed in the screen to tell you which CAM has been detected by the receiver and it is available now.

Note:

All information showed in this menu and submenu is coming from inserted card. If anything is wrong, it could be card problem. After inserting the card correctly at any time, a message-box will show on the screen with message about detecting the card, in "card info" menu all available information will be displayed

6. PING

When you enter “Internet PING” menu, you will see a screen like below:



.Set Ping Mode option for 5times or forever

.Set Ping time out by 1~10sec

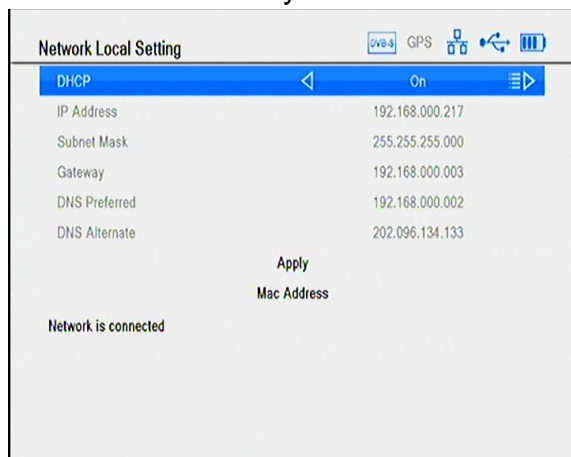
Set Ping Target by String and Number

When the highlight on the Ping Run, press OK key to run PING function

7. Internet local setting

Press to enter internet local setting menu.

When you enter “Network Local Setting” menu, you can select DHCP or input the IP address manually.

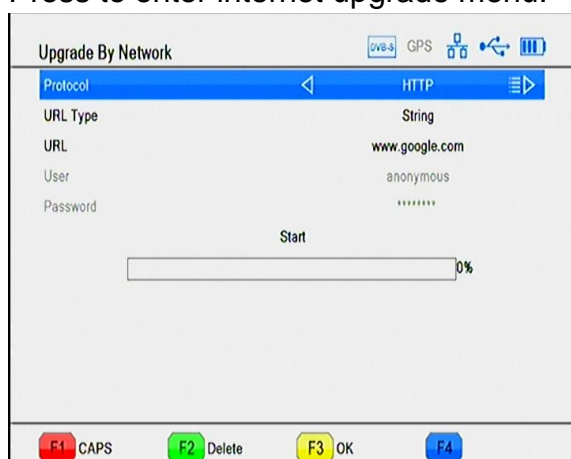


The default setting for network is DHCP and it will be able to automatically obtain network settings.

If you select DHCP off, you can input IP Address, Subnet Mask, Gateway, DNS Preferred, DNS Alternate and Mac Address. And select Apply to save the changed figures.

8. Internet Upgrade

Press to enter internet upgrade menu.

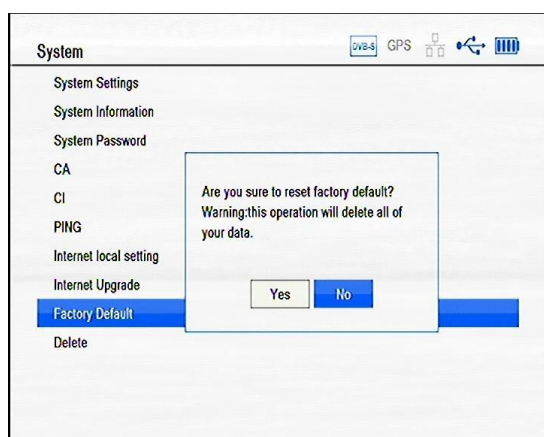


When you enter “Upgrade By Network” menu, you will see a screen like below:

- 1). Set Protocol options for HTTP and upgrading will be processed according to HTTP protocol.
- 2). Set Protocol options for FTP and file will be able to be transferred according to FTP protocol.
- 3). Set URL Type option for String and you can access to the URL by string (alphabet)
- 4). Set URL Type options for Number and you can access to URL by IP numbers
- 5). Press “OK” button for upgrading

9. Factory Default

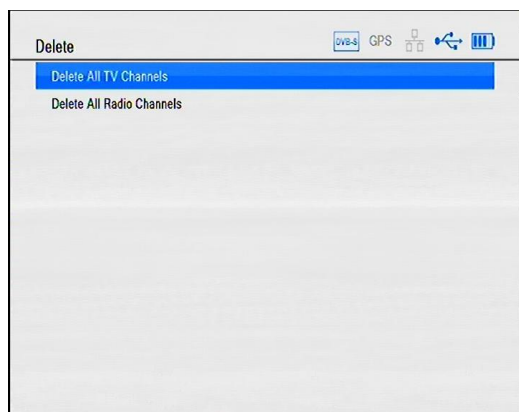
Press to enter factory default menu.



When you press [OK] key in the “Factory Default” item, It will show a warning message to inquiry you “The operation will delete all of your data”.

If you select “Yes” option, the all revised parameters of the receiver will reset to default value. Please carefully to use this function.

10. Delete

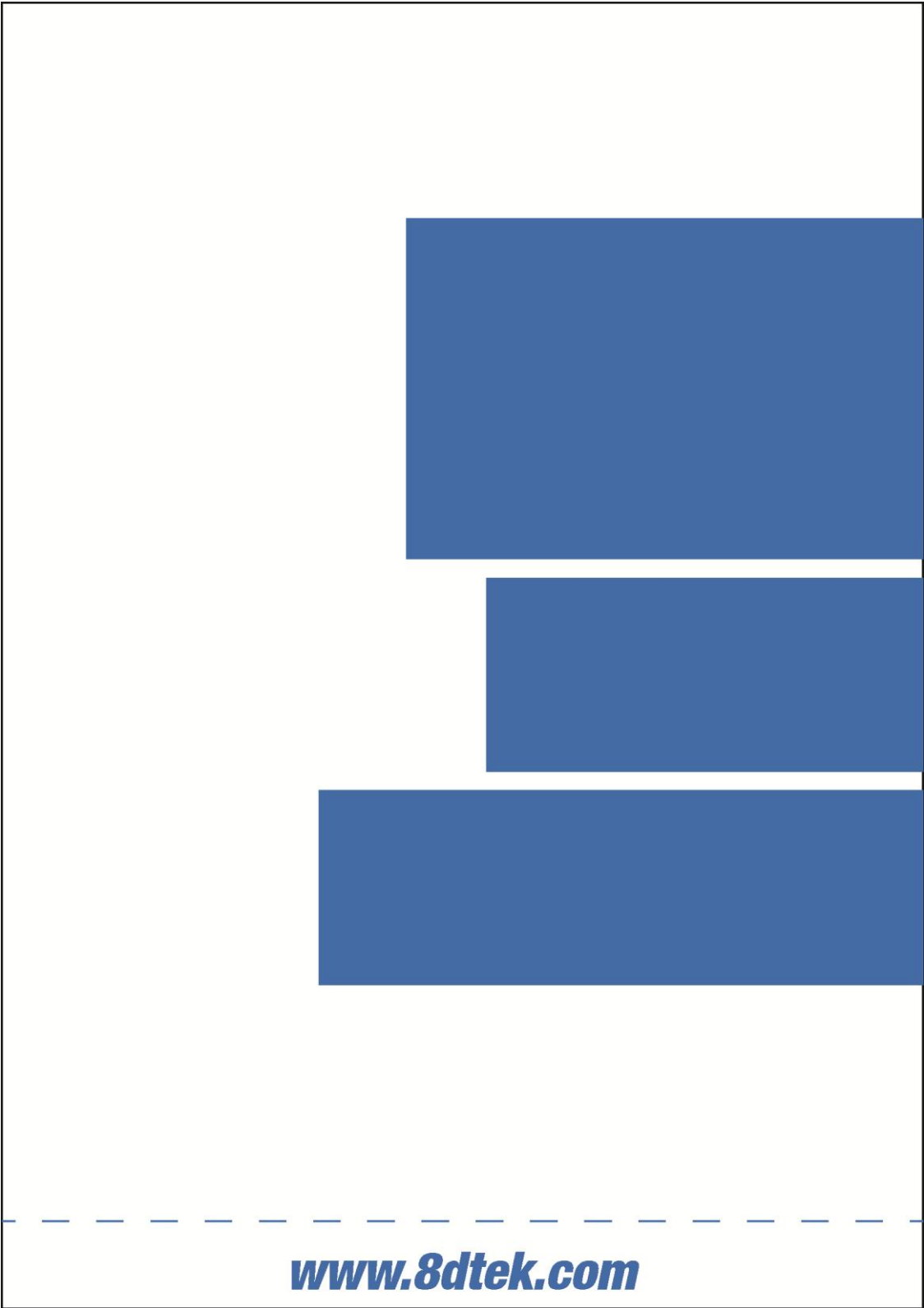


When you enter to Delete menu, you can Delete all TV and Radio channels

XI. Specifications

DVB-S/S2	tuner	Connector	F type, male
		Frequency range	950MHz-2150MHz
		LNB supply	13/18V,max500mA
		LNB switch control	22KHz
		Power range	42dB μ V~82dB μ V
		Impedance	75 Ω
	demodulator	Front end	QPSK/8PSK/16APSK
		Symbol rate	2Mbps~45Mbps
		Spectral inversion	Auto conversion
DVB-C	tuner	Connector	BNC
		Frequency range	117MHz-858MHz
		Bandwidth	5/6/7/8 Mhz,
		Power range	42dB μ V~82dB μ V
	demodulator	Front end	16/32/64/128/256QAM

		Symbol rate	1000 to 7000 Kbauds
DVB-T/T2	tuner	Carriers	2K/8K
		Frequency range	170MHz-858MHz
		Bandwidth	5/6/7/8 Mhz,
		Power range	42dB μ V~82dB μ V
		Impedance	75 Ω
	demodulator	Front end	QPSK/16QAM/64QAM/256QAM
		Carriers	2K/8K
Video Decoder		MPEG 2	ISO/IEC 11172-2 MPEG1,ISO/IEC 13818-2 MPEG2 MP@HL,
		Data Rate	ISO/IEC 14496,MPEG4 Compliant Support SP@I3 to ASP@L5,
		Resolution	ISO/IEC 14496-10 AVC high, Profile @ level 4.1 Main profile @ level 4.1
		Video format	PAL/NTSC
MPEG Audio		Decoding	MPEG1 Layer1/2,MPEGII LayerII
		Mode	Mono/Stereo/Left/Right
		Sampling rates	32,44.1 and 48KHz
Port		Connector	USB,RS232,Ethernet,AV-OUT, DC
Power Supply		Li-ion Battery	4100 mAH
		Supply voltage	15V 1.5A
		charger	90-240V
Battery		Temperature range:	-20 °c - 60 °c
Consumption			Max. 22 W
Panel Connectors		Digital tuner input	F type, Male
Physical Specification		Size	255x143x55mm
		Weight(Net)	1.35kg
Monitor		Display Screen	7.0 Inch TFT
		Signal Strength Display	Yes



XII.